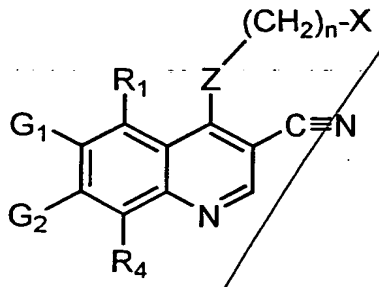
WHAT IS CLAIMED IS:

1. A compound of Formula 1 having the structure:



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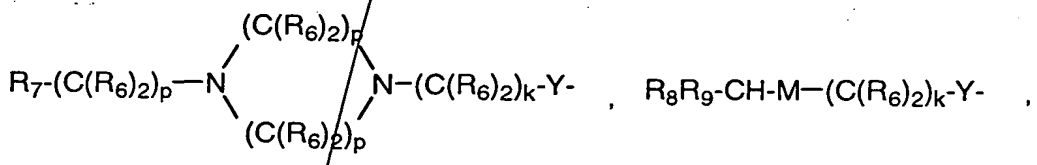
wherein:

X is cycloalkyl of 3 to 7 carbon atoms, which may be optionally substituted with one or more alkyl of 1 to 6 carbon atom groups; or is a pyridinyl, pyrimidinyl, or phenyl ring wherein the pyridinyl, pyrimidinyl, or phenyl ring may be optionally mono- di-, or tri-substituted with a substituent selected from the group consisting of halogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, azido, hydroxyalkyl of 1-6 carbon atoms, halomethyl, alkoxymethyl of 2-7 carbon atoms, alkanoyloxymethyl of 2-7 carbon atoms, alkoxy of 1-6 carbon atoms, alkylthio of 1-6 carbon atoms, hydroxy, trifluoromethyl, cyano, nitro, carboxy, carboalkoxy of 2-7 carbon atoms, carboalkyl of 2-7 carbon atoms, phenoxy, phenyl, thiophenoxy, benzoyl, benzyl, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 2 to 12 carbon atoms, phenylamino, benzylamino, alkanoylamino of 1-6 carbon atoms, alkenoylamino of 3-8 carbon atoms, alkynoylamino of 3-8 carbon atoms, carboxyalkyl of 2-7 carbon atoms, carboalkoxyalky of 3-8 carbon atoms, aminoalkyl of 1-5 carbon atoms, N-alkylaminoalkyl of 2-9 carbon atoms, N,N-dialkylaminoalkyl of 3-10 carbon atoms, N-alkylaminoalkoxy of 2-9 carbon atoms, N,N-dialkylaminoalkoxy of 3-10 carbon atoms, mercapto, and benzoylamino;

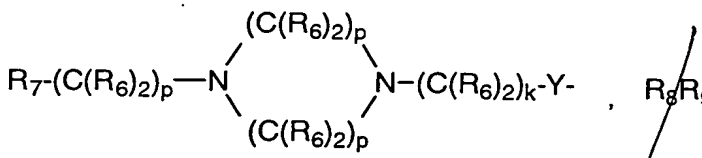
Z is -NH-, -O-, -S-, or -NR- ;

R is alkyl of 1-6 carbon atoms, or carboalkyl of 2-7 carbon atoms;

G_1, G_2, R_1, and R_4 are each, independently, hydrogen, halogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, alkenyloxy of 2-6 carbon atoms, alkynyloxy of 2-6 carbon atoms, hydroxymethyl, halomethyl, alkanoyloxy of 1-6 carbon atoms, alkenoyloxy of 3-8 carbon atoms, alkynoyloxy of 3-8 carbon atoms, alkanoyloxymethyl of 2-7 carbon atoms, alkenoyloxymethyl of 4-9 carbon atoms, alkynoyloxymethyl of 4-9 carbon atoms, alkoxymethyl of 2-7 carbon atoms, alkoxy of 1-6 carbon atoms, alkylthio of 1-6 carbon atoms, alkylsulphinyl of 1-6 carbon atoms, alkylsulphonyl of 1-6 carbon atoms, alkylsulfonamido of 1-6 carbon atoms, alkenylsulfonamido of 2-6 carbon atoms, alkynylsulfonamido of 2-6 carbon atoms, hydroxy, trifluoromethyl, trifluoromethoxy, cyano, nitro, carboxy, carboalkoxy of 2-7 carbon atoms, carboalkyl of 2-7 carbon atoms, phenoxy, phenyl, thiophenoxy, benzyl, amino, hydroxyamino, alkoxyamino of 1-4 carbon atoms, alkylamino of 1-6 carbon atoms, dialkylamino of 2 to 12 carbon atoms, N-alkylcarbamoyl, N,N-dialkylcarbamoyl, N-alkyl-N-alkenylamino of 4 to 12 carbon atoms, N,N-dialkenylamino of 6-12 carbon atoms, phenylamino, benzylamino,

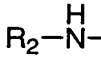


with the proviso that either G_1 or G_2 or both G_1 and G_2 must be a radical selected from the group

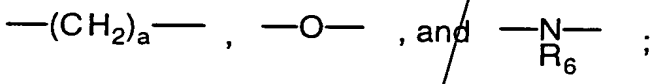


, R_8R_9-CH-M—$(C(R_6)_2)_k$-Y- ,

R'_7-$(C(R_6)_2)_g$-Y- , R_7-$(C(R_6)_2)_p$-M-$(C(R_6)_2)_k$-Y- , Het-$(C(R_6)_2)_q$-W-$(C(R_6)_2)_k$-Y- ,

or  ;

Y is a divalent radical selected from the group consisting of



;

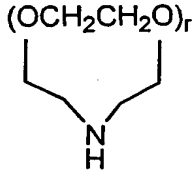
R_7 is $-NR_6R_6$, -J, $-OR_6$, $-N(R_6)_3^+$, or $-NR_6(OR_6)$;

R'_7 is $-NR_6(OR_6)$, $-N(R_6)_3^+$, alkenoxy of 1-6 carbon atoms, alkynoxy of 1-6 carbon atoms, N-alkyl-N-alkenylamino of 4 to 12 carbon atoms, N,N-dialkenylamino of 6-12 carbon atoms, N-alkyl-N-alkynylamino of 4 to 12 carbon atoms, N-alkenyl-N-alkynylamino of 4 to 12 carbon atoms, or N,N-dialkynylamino of 6-12 carbon atoms with the proviso that the alkenyl or alkynyl moiety is bound to a nitrogen or oxygen atom through a saturated carbon atom;

M is $>NR_6$, -O-, $>N-(C(R_6)_2)_pNR_6R_6$, or $>N-(C(R_6)_2)_p-OR_6$;

W is $>NR_6$, -O- or is a bond;

Het is a heterocycle selected from the group consisting of morpholine, thiomorpholine, thiomorpholine S-oxide, thiomorpholine S,S-dioxide, piperidine, pyrrolidine, aziridine, pyridine, imidazole, 1,2,3-triazole, 1,2,4-triazole, thiazole, thiazolidine, tetrazole, piperazine, furan, thiophene, tetrahydrothiophene, tetrahydrofuran, dioxane, 1,3-dioxolane ,

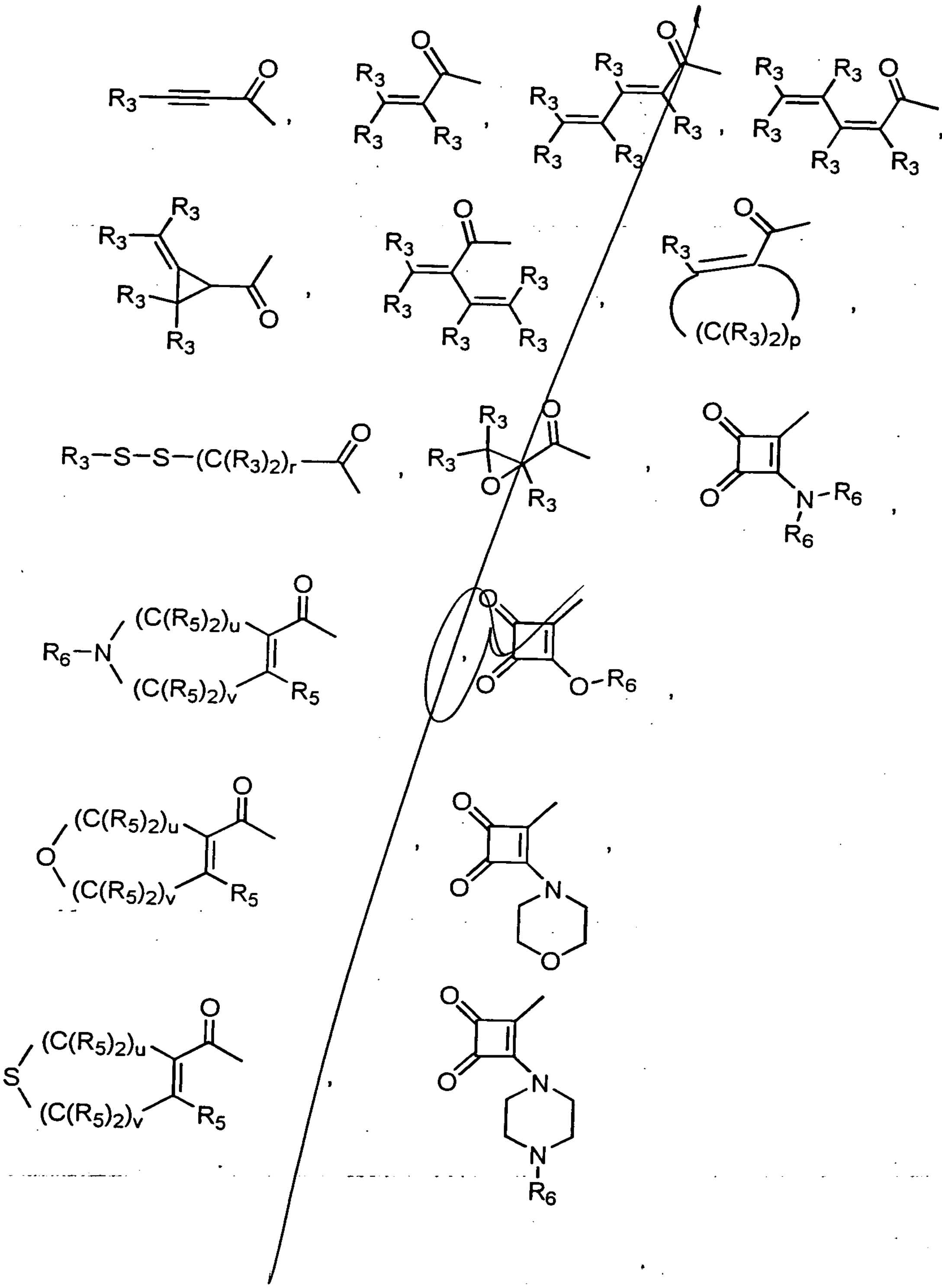


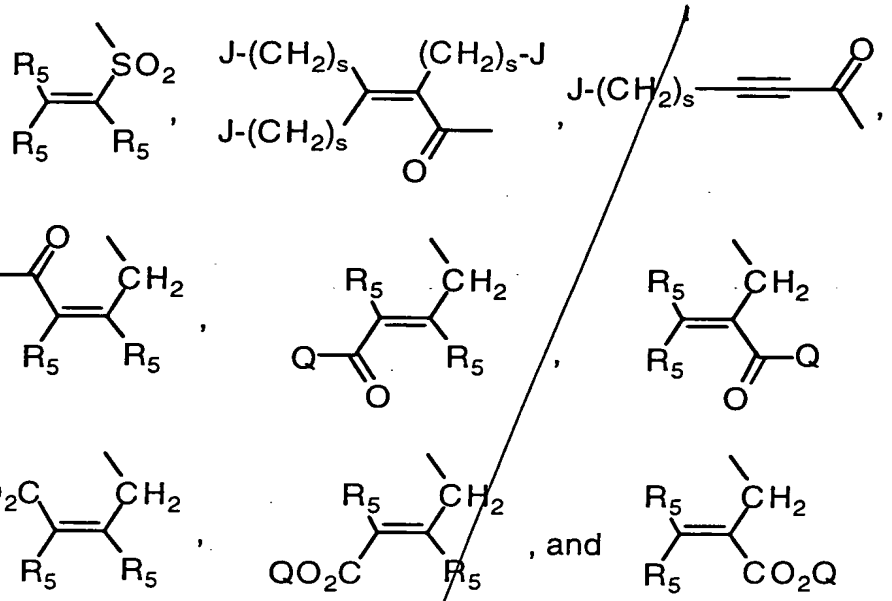
tetrahydropyran, and ;

wherein the heterocycle is optionally mono- or di-substituted on carbon or nitrogen with R_6, optionally mono- or di-substituted on carbon with hydroxy, $-N(R_6)_2$, or $-OR_6$, optionally mono or di-substituted on carbon with the mono-valent radicals $-(C(R_6)_2)_sOR_6$ or $-(C(R_6)_2)_sN(R_6)_2$, or optionally mono or di-substituted on a saturated carbon with divalent radicals -O- or $-O(C(R_6)_2)_sO-$;

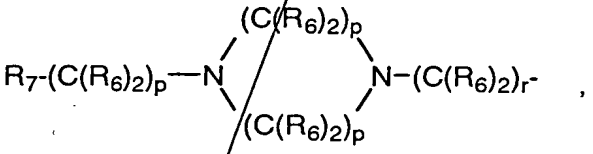
R_6 is hydrogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, cycloalkyl of 1-6 carbon atoms, carboalkyl of 2-7 carbon atoms, carboxyalkyl (2-7 carbon atoms), phenyl, or phenyl optionally substituted with one or more halogen, alkoxy of 1-6 carbon atoms, trifluoromethyl, amino, alkylamino of 1-3 carbon atoms, dialkylamino of 2-6 carbon atoms, nitro, cyano, azido, halomethyl, alkoxymethyl of 2-7 carbon atoms, alkanoyloxymethyl of 2-7 carbon atoms, alkylthio of 1-6 carbon atoms, hydroxy, carboxyl, carboalkoxy of 2-7 carbon atoms, phenoxy, phenyl, thiophenoxy, benzoyl, benzyl, phenylamino, benzylamino, alkanoylamino of 1-6 carbon atoms, or alkyl of 1-6 carbon atoms;

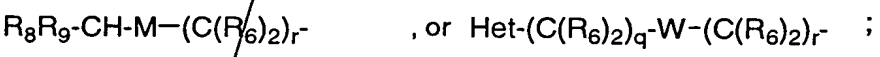
R_2, is selected from the group consisting of



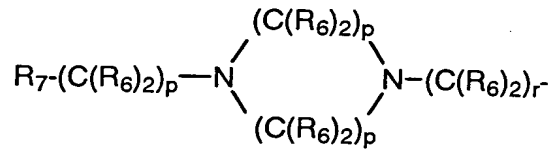


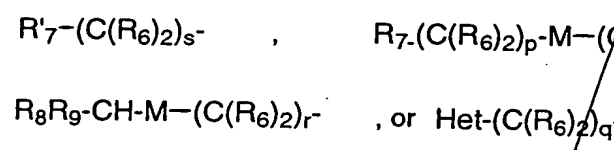
R3 is independently hydrogen, alkyl of 1-6 carbon atoms, carboxy, carboalkoxy of 1-6 carbon atoms, phenyl, carboalkyl of 2-7 carbon atoms,



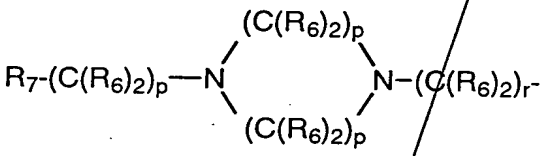


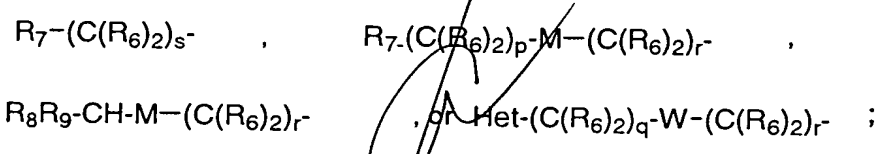
with the proviso that at least one of the R3 groups is selected from the group





R_5 is independently hydrogen, alkyl of 1-6 carbon atoms, carboxy, carboalkoxy of 1-6 carbon atoms, phenyl, carboalkyl of 2-7 carbon atoms,





R_8, and R_9 are each, independently, $-(C(R_6)_2)_rNR_6R_6$, or $-(C(R_6)_2)_r OR_6$;

J is independently hydrogen, chlorine, fluorine, or bromine;

Q is alkyl of 1-6 carbon atoms or hydrogen;

a = 0 or 1;

g = 1-6;

k = 0-4;

n is 0-1;

p = 2-4;

q=0-4;

r = 1-4;

s = 1-6;

u = 0-4 and v = 0-4 , wherein the sum of u+v is 2-4;

or a pharmaceutically acceptable salt thereof,

provided that

when R_6 is alkenyl of 2-7 carbon atoms or alkynyl of 2-7 carbon atoms, such alkenyl or alkynyl moiety is bound to a nitrogen or oxygen atom through a saturated carbon atom;

and further provided that

when Y is $-NR_6-$ and R_7 is $-NR_6R_6$, $-N(R_6)_3^+$, or $-NR_6(OR_6)$, then g = 2-6;

when M is -O- and R_7 is $-OR_6$, then p = 1-4;

when Y is $-NR_6-$, then k = 2-4;

when Y is -O- and M or W is -O-, then k = 1-4

when W is not a bond with Het bonded through a nitrogen atom, then q = 2-4

and when W is a bond with Het bonded through a nitrogen atom and Y is -O- or $-NR_6-$, then k = 2-4 .

2. The compound according to claim 1 wherein Z is -NH- and n = 0 or a pharmaceutically acceptable salt thereof.

3. The compound according to claim 2 wherein X is optionally substituted phenyl or a pharmaceutically acceptable salt thereof.

4. The compound according to claim 3 wherein R_1 and R_4 are hydrogen or a pharmaceutically acceptable salt thereof.

5. The compound according to claim 1, which is:

a) 1-Methyl-1,2,5,6-tetrahydro-pyridine-3-carboxylic acid [4-(3-bromo-phenylamino)-3-cyano-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

b) N-[4-[(3-Bromophenyl)amino]-3-cyano-6-quinolinyl]-4-(N-allyl-N-methylamino)-2-butynamide or a pharmaceutically acceptable salt thereof;

c) N-[4-[(3-Bromophenyl)amino]-3-cyano-6-quinolinyl]-4-(N-methoxyethyl-N-methylamino)-2-butynamide or a pharmaceutically acceptable salt thereof;

d) N-[4-[(3-Bromophenyl)amino]-3-cyano-6-quinolinyl]-4-(bis-(2-methoxyethyl)amino)-2-butynamide or a pharmaceutically acceptable salt thereof;

e) 4-Methoxymethoxy-but-2-ynoic acid [4-(3-bromo-phenylamino)-3-cyano-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

f) 4-(4-Chloro-2-fluoro-phenylamino)-6-methoxy-7-(2-pyridin-4-yl-ethoxy)-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

g) 4-(2-Methoxy-ethoxy)-but-2-ynoic acid [4-(3-bromo-phenylamino)-3- cyano-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

h) 4-((2S)-2-Methoxymethylpyrrolidin-1-yl)but-2-ynoic Acid [4-(3-bromophenylamino)-3-cyanoquinolin-6-yl]amide or a pharmaceutically acceptable salt thereof;

i) 4-(1,4-Dioxa-8-azaspiro[4,5]dec-8-yl)but-2-ynoic Acid [4-(3-Bromophenylamino)-3-cyanoquinolin-6-yl] amide or a pharmaceutically acceptable salt thereof;

j) 4-(3-Bromo-phenylamino)-6-(2-ethoxy-3,4-dioxo-cyclobut-1-enylamino)-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

k) 4-[(2-Methoxy-ethyl)-methyl-amino]-but-2-enoic acid [4-(3-chloro-4- fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

l) (S)-4-(2-Methoxymethyl-pyrrolidin-1-yl)-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide dihydrochloride or a pharmaceutically acceptable salt thereof;

m) 4-(3-Hydroxymethyl-piperidin-1-yl)-but-2-enoic acid [4-(3-chloro-4- fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

n) 4-(1,4-Dioxa-8-aza-spiro[4.5]dec-8-yl)-but-2-enoic acid [4-(3- chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

o) 4-(2-Hydroxymethyl-piperidin-1-yl)-but-2-enoic acid [4-(3-chloro-4- fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

p) 4-Bromo-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

q) 4-(3-hydroxy-4-methyl-phenylamino)-6-methoxy-7-(3-pyridin-4-yl-propoxy)-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

r) 4-Diallylamino-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3cyano-7-methoxy- quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

s) 4-[Bis-(2-methoxy-ethyl)-amino]- but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)- 3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

t) 4-([1,3]Dioxolan-2-ylmethyl-methyl-amino)-but-2-enoic acid 3-cyano-7-methoxy -quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

u) 4-[Bis-(2-hydroxy-ethyl)-amino]-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy- quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

v) 4-Thiomorpholin-4-yl-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

w) 4-[4-(2-Hydroxy-ethyl)-piperazin-1-yl]-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy- quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

x) 4-(1,4,7-Trioxa-10-aza-cyclododec-10-yl)-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy- quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

y) 4-(Methoxy-methyl-amino)-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

z) 4-(4-Hydroxy-piperidin-1-yl)-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

aa) 4-[1,4']Bipiperidinyl-1'-yl-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

bb) 4-Thiazolidin-3-yl-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

cc) 3-{3-[4-(3-Chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-ylcarbamoyl]-allyl}-4-methyl-thiazol-3-ium bromide or a pharmaceutically acceptable salt thereof;

dd) 4-(2,6-Dimethyl-piperidin-1-yl)-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

ee) 4-[Bis-(2-hydroxy-propyl)-amino]-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

ff) 4-(3-Hydroxy-pyrrolidin-1-yl)-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

gg) 4-[(2-Hydroxy-ethyl)-methyl-amino]-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

hh) 4-(2,5-Dimethyl-pyrrolidin-1-yl)-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

ii) 4-(4,4-Dihydroxy-piperidin-1-yl)-but-2-enoic acid [4-(3-chloro-4-fluoro-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

jj) 4-(3-Chloro-4-fluoro-phenylamino)-7-methoxy-6-pyrrolidin-1-yl-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

kk) 4-(3-Chloro-4-fluroanilino)-7-methoxy-6-(1H-pyrrol-1-yl)-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

ll) 6-(1-Aziridinyl)-4-(3-chloro-4-fluoroanilino)-7-methoxy-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

mm) 4-[(2-Methoxy-ethyl)-methyl-amino]-but-2-enoic acid [4-(3-bromo-phenylamino)-3-cyano-7-ethoxy-quinolin-6-yl]-amide or a pharmaceutically acceptable salt thereof;

nn) 4-(2,4-Dichloro-5-methoxy-phenylamino)-7-[3-(4-hydroxy-piperidin-1-yl)-propoxy]-6-methoxy-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

oo) 4-(2,4-Dichloro-5-methoxy-phenylamino)-7-{3-[4-(2-hydroxy-ethyl)-piperazin-1-yl]-propoxy}-6-methoxy-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

pp) 4-(2-Bromo-4-chloro-phenylamino)-7-{2-[(2-hydroxy-ethyl)-methyl-amino]-ethoxy}-6-methoxy-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

qq) 4-(2,4-Dichloro-5-methoxy-phenylamino)-7-{3-[(2-hydroxy-ethyl)-methyl-amino]-propoxy}-6-methoxy-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

rr) 4-(2,4-Dichloro-5-methoxy-phenylamino)-6-methoxy-7-(3-thiomorpholin-4-yl-propoxy)-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

ss) 4-(2,4-Dichloro-5-methoxy-phenylamino)-6-methoxy-7-[3-(2-methoxy-ethylamino)-propoxy]-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

tt) 4-(2,4-Dichloro-5-methoxy-phenylamino)-6-methoxy-7-[3-(4-methyl-piperidin-1-yl)-propoxy]-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

uu) 4-(2,4-Dichloro-5-methoxy-phenylamino)-7-[3-(2,6-dimethyl-morpholin-4-yl)-propoxy]-6-methoxy-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

vv) 4-(2-Bromo-4-chloro-phenylamino)-7-{2-[4-(2-hydroxy-ethyl)-piperazin-1-yl]-ethoxy}-6-methoxy-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

ww) 4-(2-Bromo-4-chloro-phenylamino)-7-[2-(4-hydroxy-piperidin-1-yl)-ethoxy]-6-methoxy-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

xx) 4-(2-Bromo-4-chloro-phenylamino)-6-methoxy-7-(2-thiomorpholin-4-yl-ethoxy)-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

yy) 4-(2,4-Dichloro-5-methoxy-phenylamino)-7-[3-(2,5-dimethyl-pyrrolidin-1-yl)-propoxy]-6-methoxy-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

zz) 4-(2,4-Dichloro-5-methoxy-phenylamino)-7-[3-(3-hydroxy-propylamino)-propoxy]-6-methoxy-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

aaa) 1-{3-[3-Cyano-4-(2,4-dichloro-5-methoxy-phenylamino)-6-methoxy-quinolin-7-yloxy]-propyl}-piperidine-4-carboxylic acid ethyl ester or a pharmaceutically acceptable salt thereof;

bbb) 7-[3-(4-acetyl-1-piperazinyl)propoxy]-4-[(2,4-dichloro-5-methoxyphenyl)amino]-6-methoxy-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

ccc) 4-(3-chloro-4-fluoroanilino)-7-methyoxy-6(4-morpholinyl)-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

ddd) 7-[3-(4-Benzyl-piperazin-1-yl)-propoxy]-4-(2,4-dichloro-5-methoxy-phenylamino)-6-methoxy-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

eee) 4-(2,4-Dichloro-5-methoxy-phenylamino)-7-[3-(2-hydroxy-ethylamino)-propoxy]-6-methoxy-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

fff) 4-(2,4-Dichloro-5-methoxy-phenylamino)-7-{3-[ethyl-(2-hydroxy-ethyl)-amino]-propoxy}-6-methoxy-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

ggg) 7-{3-[Bis-(2-methoxy-ethyl)-amino]-propoxy}-4-(2,4-dichloro-5-methoxy-phenylamino)-6-methoxy-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

hhh) 7-{3-[Bis-(2-hydroxy-ethyl)-amino]-propoxy}-4-(2,4-dichloro-5-methoxy-phenylamino)-6-methoxy-quinoline-3-carbonitrile or a pharmaceutically acceptable salt thereof;

iii) 4-(3-chloro-4-fluoroanilino)-7-(4-morpholinyl)-6-nitro-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

jjj) N-[4-(3-chloro-4-fluoroanilino)-3-cyano-7-(4-morpholinyl)-6-quinolinyl]-2-butynamide or a pharmaceutically acceptable salt thereof;

kkk) 6-amino-4-(3-chloro-4-fluoroanilino)-7-(4-morpholinyl)-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

lll) 4-(2,4-dichloro-5-methoxyanilino)-6-methoxy-7-(3-{[2-(4--morpholinyl)ethyl]amino}propoxy)-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

mmm) 7-{3-[(2-anilinoethyl)amino]propoxy}-4-(2,4-dichloro-5-methoxyanilino)-6-methoxy-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

nnn) N-[4-(3-chloro-4-fluoroanilino)-3-cyano-7-(4-morpholinyl)-6-quinolinyl]acrylamide or a pharmaceutically acceptable salt thereof;

ooo) 4-(3-chloro-4-fluoroanilino)-7-{4-[2-(dimethylamino)ethyl]-1-piperazinyl}-6-nitro-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

ppp) 6-amino-4-(3-chloro-4-fluoroanilino)-7-{4-[2-(dimethylamino)ethyl]-1-piperazinyl}-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

qqq) N-(4-(3-chloro-4-fluoroanilino)-3-cyano-7-{4-[2-(dimethylamino)ethyl]-1-piperazinyl}-6-quinolinyl)acrylamide or a pharmaceutically acceptable salt thereof;

rrr) 4-(2,4-dichloro-5-methoxyanilino)-6-methoxy-7-({2-[4-(2-methoxyethyl)-1-piperazinyl]ethyl}amino)-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

sss) 4-(2,4-dichloro-5-methoxyanilino)-6-methoxy-7-[3-(2H-1,2,3-triazol-2-yl)propoxy]-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

ttt) 4-(2,4-dichloro-5-methoxyanilino)-6-methoxy-7-[3-(1H-1,2,3-triazol-1-yl)propoxy]-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

uuu) 4-(2,4-dichloro-5-methoxyanilino)-6-methoxy-7-(3-thienyl)-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

vvv) 4-[(E)-2-(2-quinolinyl)ethenyl]aniline or a pharmaceutically acceptable salt thereof;

www) 4-(2,4-dichloro-5-methoxyanilino)-6-methoxy-7-{[2-(2H-1,2,3-triazol-2-yl)ethyl]amino}-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

xxx) 4-(2,4-dichloro-5-methoxyanilino)-6-methoxy-7-{[2-(1H-1,2,3-triazol-1-yl)ethyl]amino}-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

yyy) 4-(2,4-dichloro-5-methoxyanilino)-7-(3-thienyl)-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

zzz) 4-(2,4-dichloro-5-methoxyanilino)-6-methoxy-7-[3-(1H-1,2,4-triazol-1-yl)propoxy]-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

aaaa) 4-(2,4-dichloro-5-methoxyanilino)-7-[3-(1H-imidazol-1-yl)propoxy]-6-methoxy-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

bbbb) 4-(2,4-dichloro-5-methoxyanilino)-6-methoxy-7-[3-(1H-pyrazol-1-yl)propoxy]-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

cccc) N-[3-cyano-4-(2,4-dichloro-5-methoxyanilino)-6-methoxy-7-quinolinyl]-N-[4-(4-ethyl-1-piperazinyl)butyl]acetamide or a pharmaceutically acceptable salt thereof;

dddd) N-[3-cyano-4-(2,4-dichloro-5-methoxyanilino)-6-methoxy-7-quinolinyl]-N-(3-(4-ethyl-1-piperazinyl)propyl)acetamide or a pharmaceutically acceptable salt thereof;

eeee) 4-(2,4-dichloro-5-methoxyanilino)-6-methoxy-7-{3-[4-(2-methoxyethyl)-1-piperazinyl]propoxy}-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

ffff) 4-(2,4-dichloro-5-methoxyanilino)-6-methoxy-7-(1H-pyrrol-1-yl)-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

gggg) 4-(4-bromo-2-fluoroanilino)-6-methoxy-7-[2-(1H-1,2,3-triazol-1-yl)ethoxy]-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

hhhh) 4-(4-bromo-2-fluoroanilino)-6-methoxy-7-[2-(2H-1,2,3-triazol-2-yl)ethoxy]-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

iiii) '4-(2,4-dichloro-5-methoxyanilino)-6-methoxy-7-[3-(1H-tetraazol-1-yl)propoxy]-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

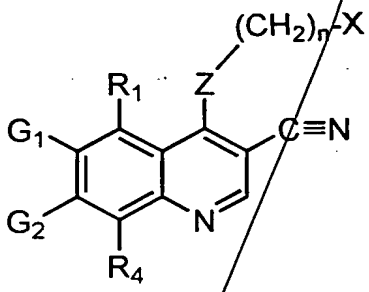
jjjj) 4-(2,4-dichloro-5-methoxyanilino)-6-methoxy-7-[3-(2H-tetraazol-2-yl)propoxy]-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

kkkk) 4-(4-bromo-2-fluoroanilino)-6-methoxy-7-[2-(1H-1,2,3-triazol-1-yl)ethoxy]-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof;

llll) 4-(4-bromo-2-fluoroanilino)-6-methoxy-7-[2-(2H-1,2,3-triazol-2-yl)ethoxy]-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof; or

mmmm) 4-(2,4-dichloro-5-methoxyanilino)-7-{3-[[2-(dimethylamino)ethyl](methyl)amino]propoxy}-6-methoxy-3-quinolinecarbonitrile or a pharmaceutically acceptable salt thereof.

6. A method of treating, inhibiting the growth of, or eradicating a neoplasm in a mammal in need thereof which comprises administering to said mammal an effective amount of a compound of formula **1** having the structure



1

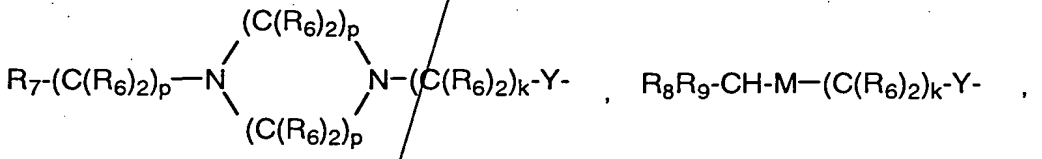
wherein:

X is cycloalkyl of 3 to 7 carbon atoms, which may be optionally substituted with one or more alkyl of 1 to 6 carbon atom groups; or is a pyridinyl, pyrimidinyl, or phenyl ring wherein the pyridinyl, pyrimidinyl, or phenyl ring may be optionally mono- di-, or tri-substituted with a substituent selected from the group consisting of halogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, azido, hydroxyalkyl of 1-6 carbon atoms, halomethyl, alkoxymethyl of 2-7 carbon atoms, alkanoyloxymethyl of 2-7 carbon atoms, alkoxy of 1-6 carbon atoms, alkylthio of 1-6 carbon atoms, hydroxy, trifluoromethyl, cyano, nitro, carboxy, carboalkoxy of 2-7 carbon atoms, carboalkyl of 2-7 carbon atoms, phenoxy, phenyl, thiophenoxy, benzoyl, benzyl, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 2 to 12 carbon atoms, phenylamino, benzylamino, alkanoylamino of 1-6 carbon atoms, alkenoylamino of 3-8 carbon atoms, alkynoylamino of 3-8 carbon atoms, carboxyalkyl of 2-7 carbon atoms, carboalkoxyalky of 3-8 carbon atoms, aminoalkyl of 1-5 carbon atoms, N-alkylaminoalkyl of 2-9 carbon atoms, N,N-dialkylaminoalkyl of 3-10 carbon atoms, N-alkylaminoalkoxy of 2-9 carbon atoms, N,N-dialkylaminoalkoxy of 3-10 carbon atoms, mercapto, and benzoylamino;

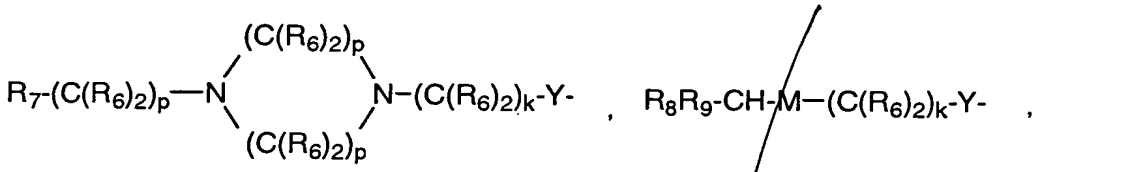
Z is -NH-, -O-, -S-, or -NR- ;

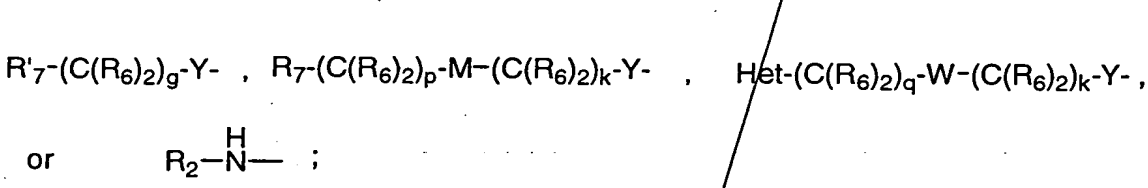
R is alkyl of 1-6 carbon atoms, or carboalkyl of 2-7 carbon atoms;

G_1, G_2, R_1, and R_4 are each, independently, hydrogen, halogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, alkenyloxy of 2-6 carbon atoms, alkynyloxy of 2-6 carbon atoms, hydroxymethyl, halomethyl, alkanoyloxy of 1-6 carbon atoms, alkenoyloxy of 3-8 carbon atoms, alkynoyloxy of 3-8 carbon atoms, alkanoyloxymethyl of 2-7 carbon atoms, alkenoyloxymethyl of 4-9 carbon atoms, alkynoyloxymethyl of 4-9 carbon atoms, alkoxymethyl of 2-7 carbon atoms, alkoxy of 1-6 carbon atoms, alkylthio of 1-6 carbon atoms, alkylsulphinyl of 1-6 carbon atoms, alkylsulphonyl of 1-6 carbon atoms, alkylsulfonamido of 1-6 carbon atoms, alkenylsulfonamido of 2-6 carbon atoms, alkynylsulfonamido of 2-6 carbon atoms, hydroxy, trifluoromethyl, trifluoromethoxy, cyano, nitro, carboxy, carboalkoxy of 2-7 carbon atoms, carboalkyl of 2-7 carbon atoms, phenoxy, phenyl, thiophenoxy, benzyl, amino, hydroxyamino, alkoxyamino of 1-4 carbon atoms, alkylamino of 1-6 carbon atoms, dialkylamino of 2 to 12 carbon atoms, N-alkylcarbamoyl, N,N-dialkylcarbamoyl, N-alkyl-N-alkenylamino of 4 to 12 carbon atoms, N,N-dialkenylamino of 6-12 carbon atoms, phenylamino, benzylamino,

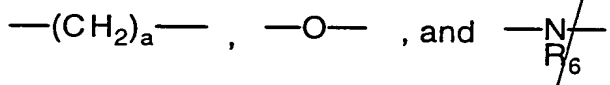


with the proviso that either G_1 or G_2 or both G_1 and G_2 must be a radical selected from the group





Y is a divalent radical selected from the group consisting of



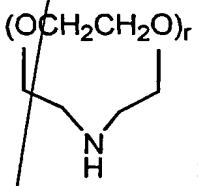
R_7 is $-NR_6R_6$, -J, $-OR_6$, $-N(R_6)_3^+$, or $-NR_6(OR_6)$;

R'_7 is $-NR_6(OR_6)$, $-N(R_6)_3^+$, alkenoxy of 1-6 carbon atoms, alkynoxy of 1-6 carbon atoms, N-alkyl-N-alkenylamino of 4 to 12 carbon atoms, N,N-dialkenylamino of 6-12 carbon atoms, N-alkyl-N-alkynylamino of 4 to 12 carbon atoms, N-alkenyl-N-alkynylamino of 4 to 12 carbon atoms, or N,N-dialkynylamino of 6-12 carbon atoms with the proviso that the alkenyl or alkynyl moiety is bound to a nitrogen or oxygen atom through a saturated carbon atom;

M is $>NR_6$, -O-, $>N-(C(R_6)_2)_pNR_6R_6$, or $>N-(C(R_6)_2)_p-OR_6$;

W is $>NR_6$, -O- or is a bond;

Het is a heterocycle selected from the group consisting of morpholine, thiomorpholine, thiomorpholine S-oxide, thiomorpholine S,S-dioxide, piperidine, pyrrolidine, aziridine, pyridine, imidazole, 1,2,3-triazole, 1,2,4-triazole, thiazole, thiazolidine, tetrazole, piperazine, furan, thiophene, tetrahydrothiophene, tetrahydrofuran, dioxane, 1,3-dioxolane,



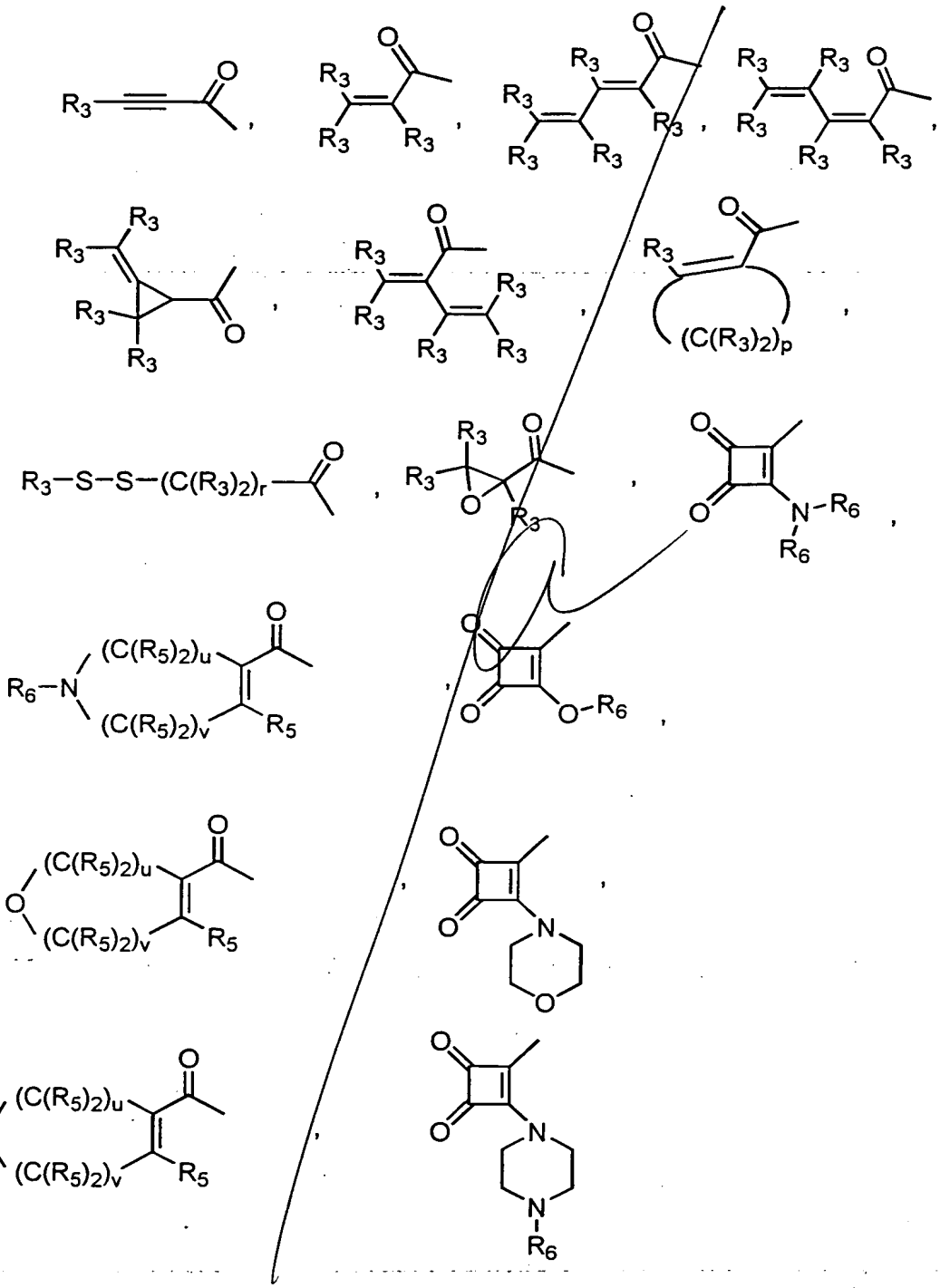
tetrahydropyran, and

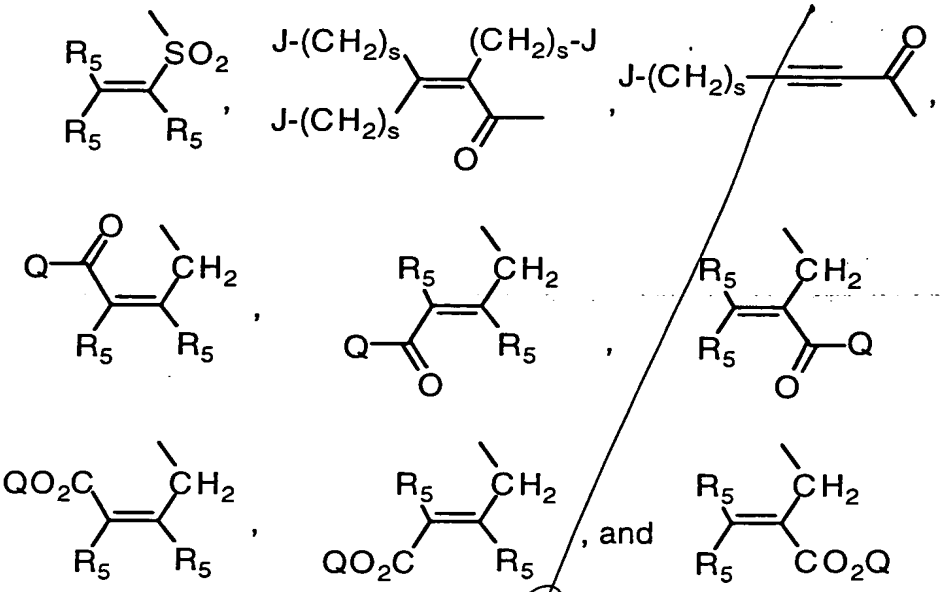
;

wherein the heterocycle is optionally mono- or di-substituted on carbon or nitrogen with R_6, optionally mono- or di-substituted on carbon with hydroxy, $-N(R_6)_2$, or $-OR_6$, optionally mono or di-substituted on carbon with the mono-valent radicals $-(C(R_6)_2)_sOR_6$ or $-(C(R_6)_2)_sN(R_6)_2$, or optionally mono or di-substituted on a saturated carbon with divalent radicals -O- or $-O(C(R_6)_2)_sO-$;

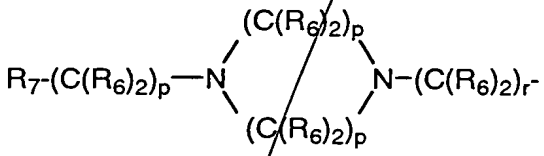
R_6 is hydrogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, cycloalkyl of 1-6 carbon atoms, carboalkyl of 2-7 carbon atoms, carboxyalkyl (2-7 carbon atoms), phenyl, or phenyl optionally substituted with one or more halogen, alkoxy of 1-6 carbon atoms, trifluoromethyl, amino, alkylamino of 1-3 carbon atoms, dialkylamino of 2-6 carbon atoms, nitro, cyano, azido, halomethyl, alkoxymethyl of 2-7 carbon atoms, alkanoyloxymethyl of 2-7 carbon atoms, alkylthio of 1-6 carbon atoms, hydroxy, carboxyl, carboalkoxy of 2-7 carbon atoms, phenoxy, phenyl, thiophenoxy, benzoyl, benzyl, phenylamino, benzylamino, alkanoylamino of 1-6 carbon atoms, or alkyl of 1-6 carbon atoms;

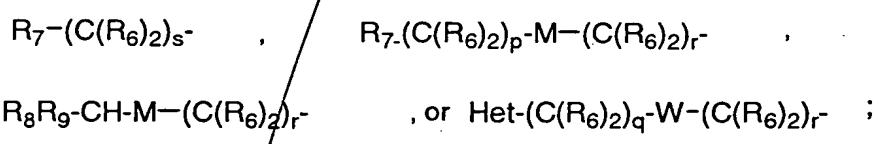
R_2, is selected from the group consisting of


R3
O
R3
R3
R3

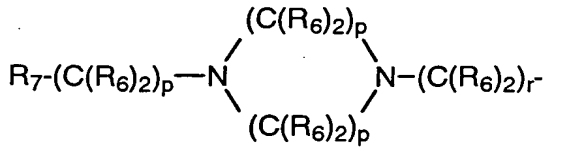


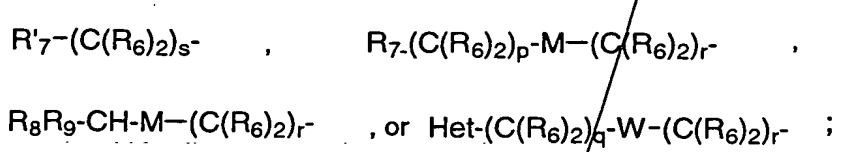
R3 is independently hydrogen, alkyl of 1-6 carbon atoms, carboxy, carboalkoxy of 1-6 carbon atoms, phenyl, carboalkyl of 2-7 carbon atoms,



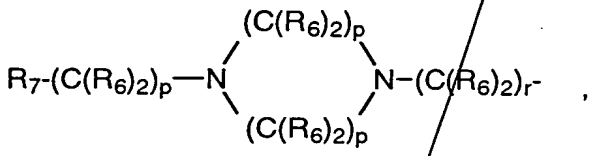


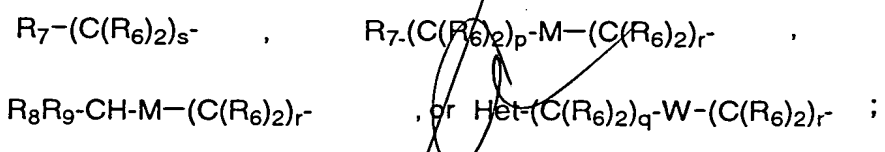
with the proviso that at least one of the R3 groups is selected from the group





R_5 is independently hydrogen, alkyl of 1-6 carbon atoms, carboxy, carboalkoxy of 1-6 carbon atoms, phenyl, carboalkyl of 2-7 carbon atoms,





R_8, and R_9 are each, independently, $-(C(R_6)_2)_rNR_6R_6$, or $-(C(R_6)_2)_r OR_6$;

J is independently hydrogen, chlorine, fluorine, or bromine;

Q is alkyl of 1-6 carbon atoms or hydrogen;

a = 0 or 1;

g = 1-6;

k = 0-4;

n is 0-1;

p = 2-4;

q=0-4;

r = 1-4;

s = 1-6;

u = 0-4 and v = 0-4 , wherein the sum of u+v is 2-4;

or a pharmaceutically acceptable salt thereof,

provided that

when R_6 is alkenyl of 2-7 carbon atoms or alkynyl of 2-7 carbon atoms, such alkenyl or alkynyl moiety is bound to a nitrogen or oxygen atom through a saturated carbon atom;

and further provided that

when Y is $-NR_6-$ and R_7 is $-NR_6R_6$, $-N(R_6)_3^+$, or $-NR_6(OR_6)$, then g = 2-6;

when M is -O- and R_7 is $-OR_6$, then p = 1-4;

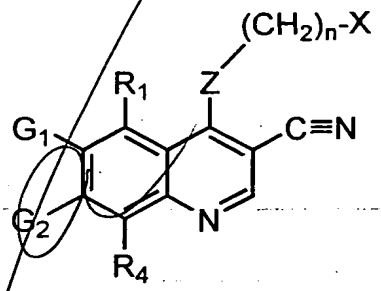
when Y is $-NR_6-$, then k = 2-4;

when Y is -O- and M or W is -O-, then k = 1-4

when W is not a bond with Het bonded through a nitrogen atom, then q = 2-4 and when W is a bond with Het bonded through a nitrogen atom and Y is -O- or $-NR_6-$, then k = 2-4.

7. The method according to claim 6 wherein the neoplasm is selected from the group consisting of breast, kidney, bladder, mouth, larynx, esophagus, stomach, colon, ovary, and lung.

8. A method of treating, inhibiting the progression of, or eradicating polycystic kidney disease in a mammal in need thereof which comprises administering to said mammal an effective amount of a compound of formula **1** having the structure



1

wherein:

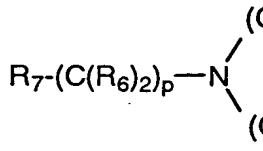
X is cycloalkyl of 3 to 7 carbon atoms, which may be optionally substituted with one or more alkyl of 1 to 6 carbon atom groups; or is a pyridinyl, pyrimidinyl, or phenyl ring wherein the pyridinyl, pyrimidinyl, or phenyl ring may be optionally mono- di-, or tri-substituted with a substituent selected from the group consisting of halogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, azido, hydroxyalkyl of 1-6 carbon atoms, halomethyl, alkoxymethyl of 2-7 carbon atoms, alkanoyloxymethyl of 2-7 carbon atoms, alkoxy of 1-6 carbon atoms, alkylthio of 1-6 carbon atoms, hydroxy, trifluoromethyl, cyano, nitro, carboxy, carboalkoxy of 2-7 carbon atoms, carboalkyl of 2-7 carbon atoms, phenoxy, phenyl, thiophenoxy, benzoyl, benzyl, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 2 to 12 carbon atoms, phenylamino, benzylamino, alkanoylamino of 1-6 carbon atoms, alkenoylamino of 3-8 carbon atoms, alkynoylamino of 3-8 carbon atoms, carboxyalkyl of 2-7 carbon atoms, carboalkoxyalky of 3-8 carbon atoms, aminoalkyl of 1-5 carbon atoms, N-alkylaminoalkyl of 2-9 carbon atoms, N,N-dialkylaminoalkyl of 3-10 carbon atoms, N-alkylaminoalkoxy of 2-9 carbon atoms, N,N-dialkylaminoalkoxy of 3-10 carbon atoms, mercapto, and benzoylamino;

Z is -NH-, -O-, -S-, or -NR- ;

R is alkyl of 1-6 carbon atoms, or carboalkyl of 2-7 carbon atoms;

G_1, G_2, R_1, and R_4 are each, independently, hydrogen, halogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, alkenyloxy of 2-6 carbon atoms, alkynyloxy of 2-6 carbon atoms, hydroxymethyl, halomethyl, alkanoyloxy of 1-6 carbon atoms, alkenoyloxy of 3-8 carbon atoms, alkynoyloxy of 3-8 carbon atoms, alkanoyloxymethyl of 2-7 carbon atoms, alkenoyloxymethyl of 4-9 carbon atoms, alkynoyloxymethyl of 4-9 carbon atoms, alkoxymethyl of 2-7 carbon atoms, alkoxy of 1-6 carbon atoms, alkylthio of 1-6 carbon atoms, alkylsulphinyl of 1-6 carbon atoms, alkylsulphonyl of 1-6 carbon atoms, alkylsulfonamido of 1-6 carbon atoms, alkenylsulfonamido of 2-6 carbon atoms, alkynylsulfonamido of 2-6 carbon atoms, hydroxy, trifluoromethyl, trifluoromethoxy, cyano, nitro, carboxy,

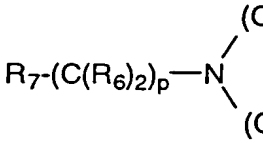
carboalkoxy of 2-7 carbon atoms, carboalkyl of 2-7 carbon atoms, phenoxy, phenyl, thiophenoxy, benzyl, amino, hydroxyamino, alkoxyamino of 1-4 carbon atoms, alkylamino of 1-6 carbon atoms, dialkylamino of 2 to 12 carbon atoms, N-alkylcarbamoyl, N,N-dialkylcarbamoyl, N-alkyl-N-alkenylamino of 4 to 12 carbon atoms, N,N-dialkenylamino of 6-12 carbon atoms, phenylamino, benzylamino,



, R_8R_9-CH-M—$(C(R_6)_2)_k$-Y- ,

R_7-$(C(R_6)_2)_g$-Y- , R_7-$(C(R_6)_2)_p$-M—$(C(R_6)_2)_k$-Y- , or Het-$(C(R_6)_2)_q$-W-$(C(R_6)_2)_k$-Y-

with the proviso that either G_1 or G_2 or both G_1 and G_2 must be a radical selected from the group

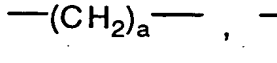


, R_8R_9-CH-M—$(C(R_6)_2)_k$-Y- ,

R'_7-$(C(R_6)_2)_g$-Y- , R_7-$(C(R_6)_2)_p$-M—$(C(R_6)_2)_k$-Y- , Het-$(C(R_6)_2)_q$-W-$(C(R_6)_2)_k$-Y- ,

or  ;

Y is a divalent radical selected from the group consisting of

 ;

R_7 is $-NR_6R_6$, -J, $-OR_6$, $-N(R_6)_3^+$, or $-NR_6(OR_6)$;

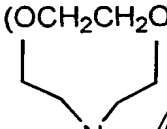
R'_7 is $-NR_6(OR_6)$, $-N(R_6)_3^+$, alkenoxy of 1-6 carbon atoms, alkynoxy of 1-6 carbon atoms, N-alkyl-N-alkenylamino of 4 to 12 carbon atoms, N,N-dialkenylamino of 6-12 carbon atoms, N-alkyl-N-alkynylamino of 4 to 12 carbon atoms, N-alkenyl-N-

alkynylamino of 4 to 12 carbon atoms, or N,N-dialkynylamino of 6-12 carbon atoms with the proviso that the alkenyl or alkynyl moiety is bound to a nitrogen or oxygen atom through a saturated carbon atom;

M is $>NR_6$, -O-, $>N-(C(R_6)_2)_pNR_6R_6$, or $>N-(C(R_6)_2)_p-OR_6$;

W is $>NR_6$, -O- or is a bond;

Het is a heterocycle selected from the group consisting of morpholine, thiomorpholine, thiomorpholine S-oxide, thiomorpholine S,S-dioxide, piperidine, pyrrolidine, aziridine, pyridine, imidazole, 1,2,3-triazole, 1,2,4-triazole, thiazole, thiazolidine, tetrazole, piperazine, furan, thiophene, tetrahydrothiophene, tetrahydrofuran, dioxane, 1,3-dioxolane ,



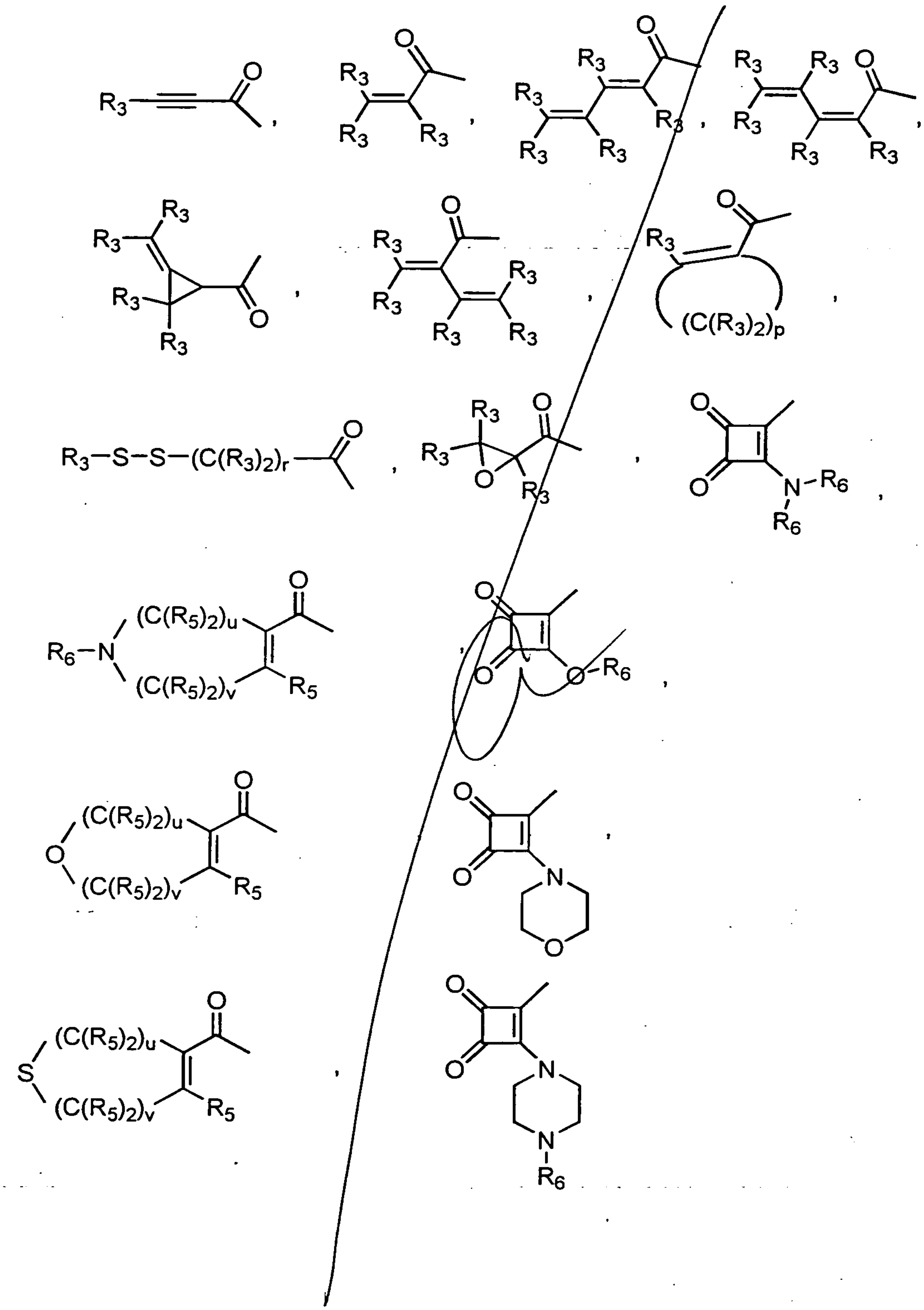
tetrahydropyran, and ; wherein the heterocycle is optionally mono- or di-substituted on carbon or nitrogen with R_6, optionally mono- or di-substituted on carbon with hydroxy, $-N(R_6)_2$, or $-OR_6$, optionally mono or di-substituted on carbon with the mono-valent radicals $-(C(R_6)_2)_sOR_6$ or $-(C(R_6)_2)_sN(R_6)_2$, or optionally mono or di-substituted on a saturated carbon with divalent radicals -O- or $-O(C(R_6)_2)_sO-$;

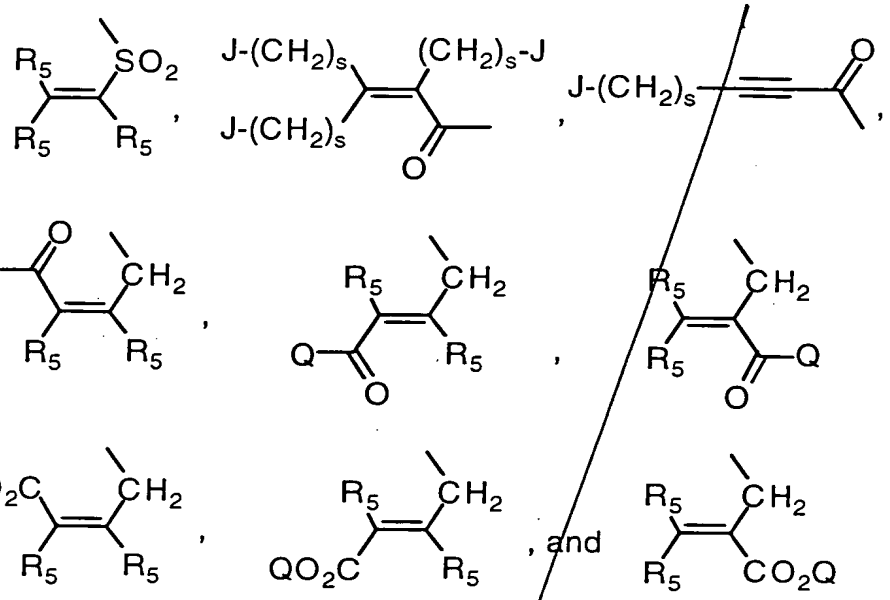
R_6 is hydrogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, cycloalkyl of 1-6 carbon atoms, carboalkyl of 2-7 carbon atoms, carboxyalkyl (2-7 carbon atoms), phenyl, or phenyl optionally substituted with one or more halogen, alkoxy of 1-6 carbon atoms, trifluoromethyl, amino, alkylamino of 1-3 carbon atoms, dialkylamino of 2-6 carbon atoms, nitro, cyano, azido, halomethyl, alkoxymethyl of 2-7 carbon atoms, alkanoyloxymethyl of 2-7 carbon atoms, alkylthio of 1-6 carbon atoms, hydroxy, carboxyl, carboalkoxy of 2-7 carbon atoms, phenoxy, phenyl,

thiophenoxy, benzoyl, benzyl, phenylamino, benzylamino, alkanoylamino of 1-6 carbon atoms, or alkyl of 1-6 carbon atoms;

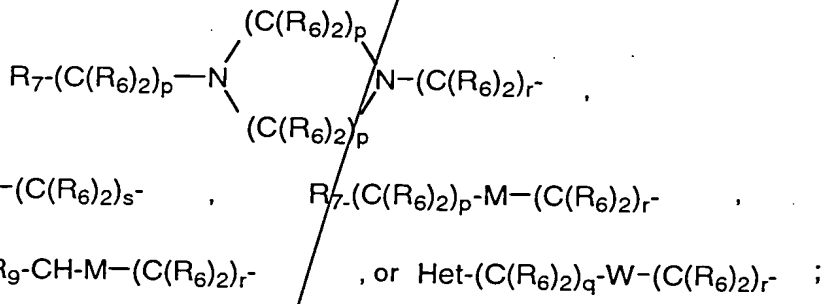
R_2, is selected from the group consisting of

5

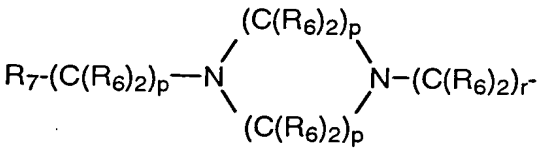

R3
O
R3
R3
R3
R3
(C(R3)2)p
R3—S—S—(C(R3)2)r
R6
N
(C(R5)2)u
(C(R5)2)v
R5
O
S

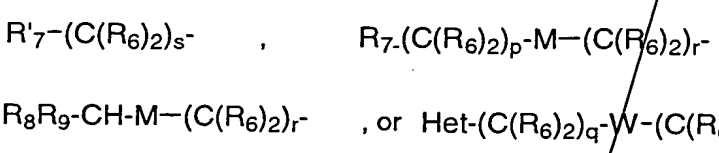


R3 is independently hydrogen, alkyl of 1-6 carbon atoms, carboxy, carboalkoxy of 1-6 carbon atoms, phenyl, carboalkyl of 2-7 carbon atoms,

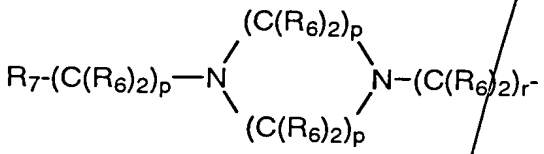


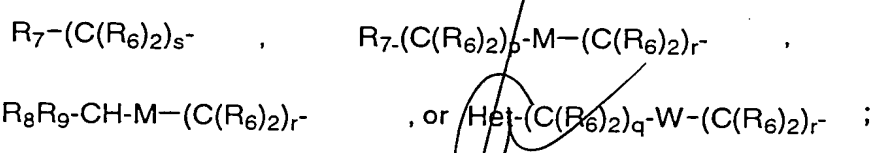
with the proviso that at least one of the R3 groups is selected from the group





R_5 is independently hydrogen, alkyl of 1-6 carbon atoms, carboxy, carboalkoxy of 1-6 carbon atoms, phenyl, carboalkyl of 2-7 carbon atoms,





R_8, and R_9 are each, independently, $-(C(R_6)_2)_rNR_6R_6$, or $-(C(R_6)_2)_r OR_6$;

J is independently hydrogen, chlorine, fluorine, or bromine;

Q is alkyl of 1-6 carbon atoms or hydrogen;

a = 0 or 1;

g = 1-6;

k = 0-4;

n is 0-1;

p = 2-4;

q=0-4;

r = 1-4;

s = 1-6;

u = 0-4 and v = 0-4 , wherein the sum of u+v is 2-4;

or a pharmaceutically acceptable salt thereof,

provided that

when R_6 is alkenyl of 2-7 carbon atoms or alkynyl of 2-7 carbon atoms, such alkenyl or alkynyl moiety is bound to a nitrogen or oxygen atom through a saturated carbon atom;

and further provided that

when Y is $-NR_6-$ and R_7 is $-NR_6R_6$, $-N(R_6)_3^+$, or $-NR_6(OR_6)$, then g = 2-6;

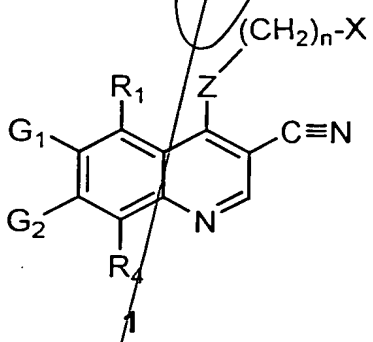
when M is -O- and R_7 is $-OR_6$, then p = 1-4;

when Y is $-NR_6-$, then k = 2-4;

when Y is -O- and M or W is -O-, then k = 1-4

when W is not a bond with Het bonded through a nitrogen atom, then q = 2-4 and when W is a bond with Het bonded through a nitrogen atom and Y is -O- or $-NR_6-$, then k = 2-4.

9. A pharmaceutical composition which comprises a compound of formula **1** having the structure



1

wherein:

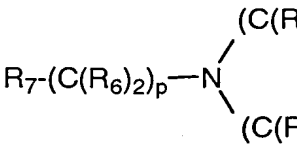
X is cycloalkyl of 3 to 7 carbon atoms, which may be optionally substituted with one or more alkyl of 1 to 6 carbon atom groups; or is a pyridinyl, pyrimidinyl, or phenyl ring wherein the pyridinyl, pyrimidinyl, or phenyl ring may be optionally mono- di-, or tri-substituted with a substituent selected from the group consisting of halogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, azido, hydroxyalkyl of 1-6 carbon atoms,

halomethyl, alkoxymethyl of 2-7 carbon atoms, alkanoyloxymethyl of 2-7 carbon atoms, alkoxy of 1-6 carbon atoms, alkylthio of 1-6 carbon atoms, hydroxy, trifluoromethyl, cyano, nitro, carboxy, carboalkoxy of 2-7 carbon atoms, carboalkyl of 2-7 carbon atoms, phenoxy, phenyl, thiophenoxy, benzoyl, benzyl, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 2 to 12 carbon atoms, phenylamino, benzylamino, alkanoylamino of 1-6 carbon atoms, alkenoylamino of 3-8 carbon atoms, alkynoylamino of 3-8 carbon atoms, carboxyalkyl of 2-7 carbon atoms, carboalkoxyalky of 3-8 carbon atoms, aminoalkyl of 1-5 carbon atoms, N-alkylaminoalkyl of 2-9 carbon atoms, N,N-dialkylaminoalkyl of 3-10 carbon atoms, N-alkylaminoalkoxy of 2-9 carbon atoms, N,N-dialkylaminoalkoxy of 3-10 carbon atoms, mercapto, and benzoylamino;

Z is -NH-, -O-, -S-, or -NR- ;

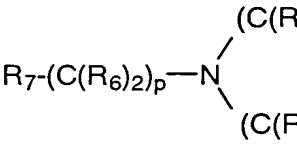
R is alkyl of 1-6 carbon atoms, or carboalkyl of 2-7 carbon atoms;

G_1, G_2, R_1, and R_4 are each, independently, hydrogen, halogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, alkenyloxy of 2-6 carbon atoms, alkynyloxy of 2-6 carbon atoms, hydroxymethyl, halomethyl, alkanoyloxy of 1-6 carbon atoms, alkenoyloxy of 3-8 carbon atoms, alkynoyloxy of 3-8 carbon atoms, alkanoyloxymethyl of 2-7 carbon atoms, alkenoyloxymethyl of 4-9 carbon atoms, alkynoyloxymethyl of 4-9 carbon atoms, alkoxymethyl of 2-7 carbon atoms, alkoxy of 1-6 carbon atoms, alkylthio of 1-6 carbon atoms, alkylsulphinyl of 1-6 carbon atoms, alkylsulphonyl of 1-6 carbon atoms, alkylsulfonamido of 1-6 carbon atoms, alkenylsulfonamido of 2-6 carbon atoms, alkynylsulfonamido of 2-6 carbon atoms, hydroxy, trifluoromethyl, trifluoromethoxy, cyano, nitro, carboxy, carboalkoxy of 2-7 carbon atoms, carboalkyl of 2-7 carbon atoms, phenoxy, phenyl, thiophenoxy, benzyl, amino, hydroxyamino, alkoxyamino of 1-4 carbon atoms, alkylamino of 1-6 carbon atoms, dialkylamino of 2 to 12 carbon atoms, N-alkylcarbamoyl, N,N-dialkylcarbamoyl, N-alkyl-N-alkenylamino of 4 to 12 carbon atoms, N,N-dialkenylamino of 6-12 carbon atoms, phenylamino, benzylamino,


, R_8R_9-CH-M-$(C(R_6)_2)_k$-Y- ,

R_7-$(C(R_6)_2)_g$-Y- , R_7-$(C(R_6)_2)_p$-M-$(C(R_6)_2)_k$-Y- , or Het-$(C(R_6)_2)_q$-W-$(C(R_6)_2)_k$-Y-

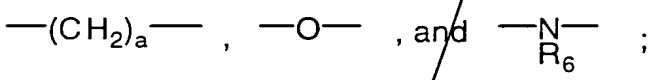
with the proviso that either G_1 or G_2 or both G_1 and G_2 must be a radical selected from the group


, R_8R_9-CH-M-$(C(R_6)_2)_k$-Y- ,

R'_7-$(C(R_6)_2)_g$-Y- , R_7-$(C(R_6)_2)_p$-M-$(C(R_6)_2)_k$-Y- , Het-$(C(R_6)_2)_q$-W-$(C(R_6)_2)_k$-Y- ,

or  ;

Y is a divalent radical selected from the group consisting of


;

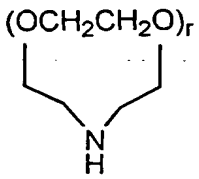
R_7 is $-NR_6R_6$, -J, $-OR_6$, $-N(R_6)_3^+$, or $-NR_6(OR_6)$;

R'_7 is $-NR_6(OR_6)$, $-N(R_6)_3^+$, alkenoxy of 1-6 carbon atoms, alkynoxy of 1-6 carbon atoms, N-alkyl-N-alkenylamino of 4 to 12 carbon atoms, N,N-dialkenylamino of 6-12 carbon atoms, N-alkyl-N-alkynylamino of 4 to 12 carbon atoms, N-alkenyl-N-alkynylamino of 4 to 12 carbon atoms, or N,N-dialkynylamino of 6-12 carbon atoms with the proviso that the alkenyl or alkynyl moiety is bound to a nitrogen or oxygen atom through a saturated carbon atom;

M is $>NR_6$, -O-, $>N-(C(R_6)_2)_pNR_6R_6$, or $>N-(C(R_6)_2)_p-OR_6$;

W is $>NR_6$, -O- or is a bond;

Het is a heterocycle selected from the group consisting of morpholine, thiomorpholine, thiomorpholine S-oxide, thiomorpholine S,S-dioxide, piperidine, pyrrolidine, aziridine, pyridine, imidazole, 1,2,3-triazole, 1,2,4-triazole, thiazole, thiazolidine, tetrazole, piperazine, furan, thiophene, tetrahydrothiophene, tetrahydrofuran, dioxane, 1,3-dioxolane ,

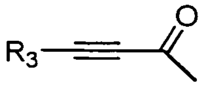
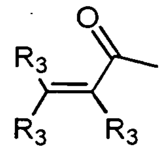
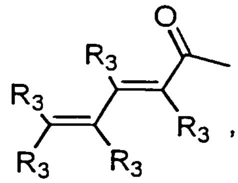
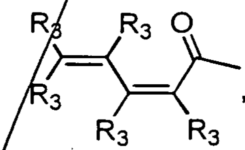


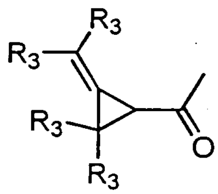
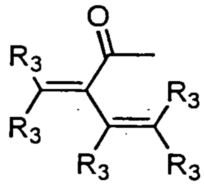
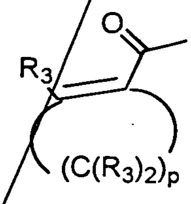
tetrahydropyran, and ;

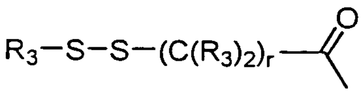
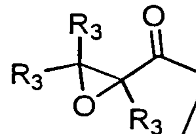
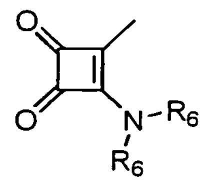
wherein the heterocycle is optionally mono- or di-substituted on carbon or nitrogen with R_6, optionally mono- or di-substituted on carbon with hydroxy, $-N(R_6)_2$, or $-OR_6$, optionally mono or di-substituted on carbon with the mono-valent radicals $-(C(R_6)_2)_sOR_6$ or $-(C(R_6)_2)_sN(R_6)_2$, or optionally mono or di-substituted on a saturated carbon with divalent radicals -O- or $-O(C(R_6)_2)_sO-$;

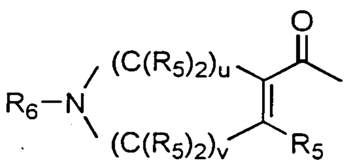
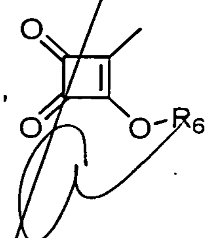
R_6 is hydrogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, cycloalkyl of 1-6 carbon atoms, carboalkyl of 2-7 carbon atoms, carboxyalkyl (2-7 carbon atoms), phenyl, or phenyl optionally substituted with one or more halogen, alkoxy of 1-6 carbon atoms, trifluoromethyl, amino, alkylamino of 1-3 carbon atoms, dialkylamino of 2-6 carbon atoms, nitro, cyano, azido, halomethyl, alkoxymethyl of 2-7 carbon atoms, alkanoyloxymethyl of 2-7 carbon atoms, alkylthio of 1-6 carbon atoms, hydroxy, carboxyl, carboalkoxy of 2-7 carbon atoms, phenoxy, phenyl, thiophenoxy, benzoyl, benzyl, phenylamino, benzylamino, alkanoylamino of 1-6 carbon atoms, or alkyl of 1-6 carbon atoms;

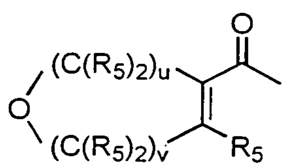
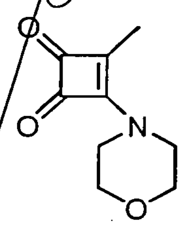
R_2, is selected from the group consisting of

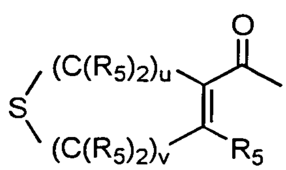
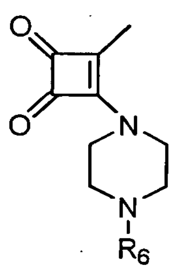
 ,  ,  ,  ,

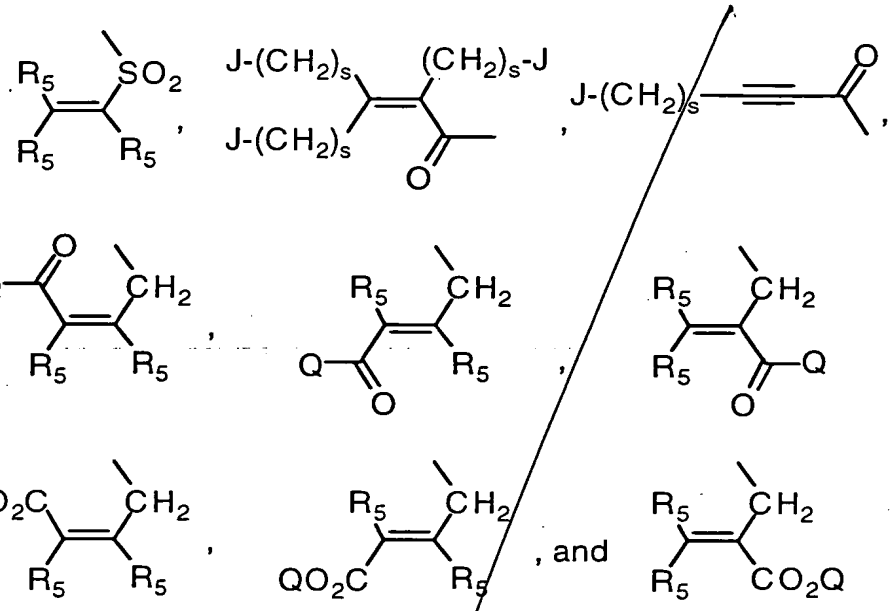
 ,  ,  ,

 ,  ,  ,

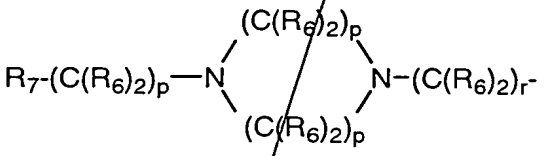
 ,  ,

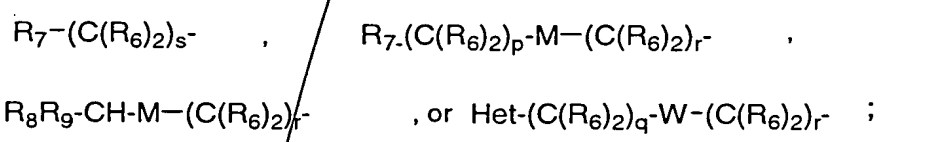
 ,  ,

 , 

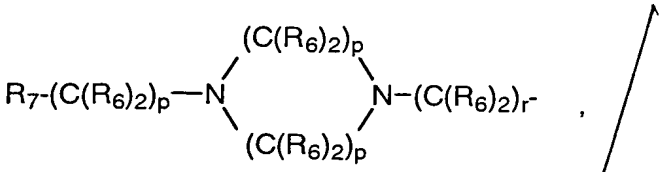


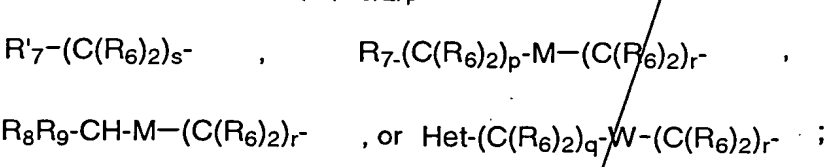
R3 is independently hydrogen, alkyl of 1-6 carbon atoms, carboxy, carboalkoxy of 1-6 carbon atoms, phenyl, carboalkyl of 2-7 carbon atoms,



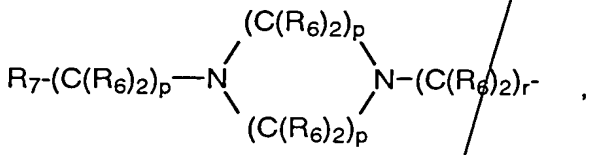


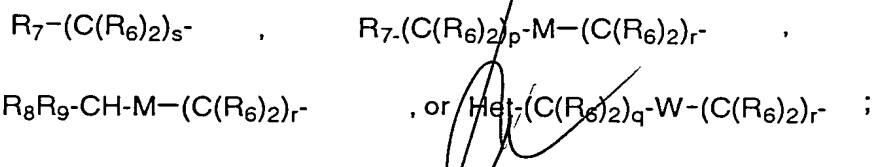
with the proviso that at least one of the R3 groups is selected from the group





R5 is independently hydrogen, alkyl of 1-6 carbon atoms, carboxy, carboalkoxy of 1-6 carbon atoms, phenyl, carboalkyl of 2-7 carbon atoms,





R8, and R9 are each, independently, $-(C(R_6)_2)_rNR_6R_6$, or $-(C(R_6)_2)_r\ OR_6$;

J is independently hydrogen, chlorine, fluorine, or bromine;

Q is alkyl of 1-6 carbon atoms or hydrogen;

a = 0 or 1;

g = 1-6;

k = 0-4;

n is 0-1;

p = 2-4;

q=0-4;

r = 1-4;

s = 1-6;

u = 0-4 and v = 0-4 , wherein the sum of u+v is 2-4;

or a pharmaceutically acceptable salt thereof,

provided that

when R_6 is alkenyl of 2-7 carbon atoms or alkynyl of 2-7 carbon atoms, such alkenyl or alkynyl moiety is bound to a nitrogen or oxygen atom through a saturated carbon atom;

and further provided that

when Y is $-NR_6-$ and R_7 is $-NR_6R_6$, $-N(R_6)_3^+$, or $-NR_6(OR_6)$, then g = 2-6;

when M is -O- and R_7 is $-OR_6$, then p = 1-4;

when Y is $-NR_6-$, then k = 2-4;

when Y is -O- and M or W is -O-, then k = 1-4

when W is not a bond with Het bonded through a nitrogen atom, then q = 2-4 and when W is a bond with Het bonded through a nitrogen atom and Y is -O- or $-NR_6-$, then k = 2-4.